

## ABSTRACT OF THE DISCLOSURE

In a gas sensor element, a sensor portion has a solid electrolyte member and a pair of electrodes. The solid electrolyte member has first and second surfaces opposite thereto. The first and second electrodes are  
5 and second surfaces opposite thereto. The first and second electrodes are mounted on the first and second surfaces of the solid electrolyte member, respectively. A heater member has a heating element and one and other surfaces opposite thereto. The sensor portion is integrally laminated on the one surface of the heater member. The other surface of the heater  
10 member is contactable to the target gas. At least a part of the other surface of the heater member has a ten points average roughness that is no more than  $1.71 \mu\text{m}$ .